Appln. No. 09/882,098
Amendment dated December 20, 2005
Reply to Office Action mailed September 20, 2005

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims (deleted text being struck through and added text being underlined):

1   1. (Original) In a network comprising a plurality of computing
2   devices, each computing device having a memory and being capable of
3   accessing the Internet, and at least one of the computing devices being
4   capable of connecting to the Internet, each computing device capable
5   of connecting to the Internet having a connection priority, a method
6   for assigning an Internet gateway for the network, comprising the
7   steps of:
8   broadcasting to the network a request to become the gateway
9   from one of the computing devices capable of connecting to the
10   Internet, wherein the request to become the gateway includes the
11   connection priority of the computing device broadcasting the request;
12   and
13   assigning the computing device broadcasting the request as the
14   gateway for the network if the computing device broadcasting the
15   request does not receive a response from the other computing devices
16   within a predetermined time period.

1   2. (Original) The method of claim 1, wherein the predetermined
2   time period is approximately 1 to 5 seconds.

1   3. (Original) The method of claim 1, wherein each computing

2 device is assigned a unique Internet protocol (IP) address, further

3 comprising the steps of:

4   broadcasting to the network the IP address of the computing

5 device assigned as the gateway for the network; and

6   storing in the memory of each computing device the IP address

7 broadcasted to the network as the IP address of the gateway for the

8 network.

1   4. (Original) The method of claim 1, wherein the computing

2 device assigned as the gateway for the network is assigned a unique

3 client IP address and assumes a predetermined gateway IP address.

1   5. (Original) The method of claim 1, wherein one of the

2 computing devices is capable of operating as a proxy for the Internet

3 gateway and is capable of being assigned a unique client IP address

4 and a proxy IP address, and further wherein at least one of the other

5 computing devices is capable of accessing the Internet by performing

6 the steps of:

7   transmitting from the respective computing device to the proxy

8 IP address of the proxy a message to be sent to the Internet; and

9   transmitting from the proxy IP address of the proxy to the

10 computing device assigned as the gateway for the network the message

11 to be sent to the Internet.

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1   6. (Original) The method of claim 1, wherein at least one of the

2   other computing devices capable of connecting to the Internet

3   responds to the broadcasted request to become the gateway by

4   performing the step of:

5   determining whether the connection priority of the respective

6   computing device is higher than the connection priority included in

7   the broadcasted request to become the gateway;

8   if the connection priority of the respective computing device is

9   not higher than the connection priority included in the broadcasted

10   request, sending no response to the broadcasted request; and

11   if the connection priority of the respective computing device is

12   higher than the connection priority included in the broadcast request,

13   performing the steps of:

14   broadcasting to the network a request to become the

15   gateway from the respective computing device within the

16   predetermined time period, wherein the request to become the

17   gateway includes the connection priority of the respective

18   computing device; and

19   assigning the respective computing device as the gateway

20   for the network if the respective computing device receives no

21   response from the other computing devices within the

22   predetermined time period.

1   7. (Original) The method of claim 6, wherein the predetermined

2   time period is approximately 1 to 5 seconds.

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1   8. (Original) The method of claim 6, wherein each computing

2 device is assigned a unique Internet protocol (IP) address, further

3 comprising the step of:

4   broadcasting to the network the IP address of the computing

5 device assigned as the gateway for the network; and

6   storing in the memory of each computing device the IP address

7 broadcasted to the network as the IP address of the gateway for the

8 network.

1   9. (Original) The method of claim 6, wherein the computing

2 device assigned as the gateway for the network is assigned a unique

3 client IP address and assumes a predetermined gateway IP address.

1   10. (Original) The method of claim 6, wherein one of the

2 computing devices is capable of operating as a proxy for the Internet

3 gateway and is capable of being assigned a unique client IP address

4 and a proxy IP address, further wherein at least one of the other

5 computing devices is capable of accessing the Internet by performing

6 the steps of:

7   transmitting from the respective computing device to the proxy a

8 IP address of the proxy a message to be sent to the Internet; and

9   transmitting from the proxy IP address of the proxy to the

10 computing device assigned as the gateway for the network the message

11 to be sent to the Internet.

1   11. (Original) A storage medium readable by a computing device

2   and having instructions encoded thereon for causing the computing

3   device to perform, in a network comprising a plurality of computing

4   devices, each computing device having a memory and being capable of

5   accessing the Internet, and at least one of the computing devices being

6   capable of connecting to the Internet, each computing device capable

7   of connecting to the Internet having a connection priority, a method

8   for assigning an Internet gateway for the network, the method

9   comprising the steps of:

10   broadcasting to the network a request to become the gateway

11   from one of the computing devices capable of connecting to the

12   Internet, wherein the request to become the gateway includes the

13   connection priority of the computing device broadcasting the request;

14   and

15   assigning the computing device broadcasting the request as the

16   gateway for the network if the computing device broadcasting the

17   request does not receive a response from the other computing devices

18   within a predetermined time period.

1   12. (Original) The storage medium of claim 11, wherein each

2   computing device is assigned a unique Internet protocol (IP) address,

3   and further wherein the method further comprises the steps of:

4   broadcasting to the network the IP address of the computing

5   device assigned as the gateway for the network; and

6   storing in the memory of each computing device the IP address

7   broadcasted to the network as the IP address of the gateway for the

8   network.

1   13. (Original) The storage medium of claim 11, wherein the
2   computing device assigned as the gateway for the network is assigned
3   a unique client IP address and assumes a predetermined gateway IP
4   address.

1   14. (Original) The storage medium of claim 11, wherein one of
2   the computing devices is capable of operating as a proxy for the
3   Internet gateway and is capable of being assigned a unique client IP
4   address and a proxy P address, and further wherein at least one of the
5   other computing devces is capable of accessing the Internet by
6   performing the steps of:
7   transmitting from the respective computing device to the proxy
8   IP address of the proxy a message to be sent to the Internet; and
9   transmitting from the proxy IP address of the computing device
10 assigned as the gateway for the network the message to be sent to the
11 Internet.

1   15. (Original) The storage medium of claim 11, wherein at least
2   one of the other computing devices capable of connecting to the
3   Internet responds to the broadcasted request to become the gateway
4   for the network by performing the steps of:
5   determining whether the connection priority of the respective
6   computing device is higher than the connection priority included in
7   the broadcasted request to become the gateway;
8   if the connection priority of the respective computing device is
9   not higher than the connection priority included in the broadcasted
10 request, sending no response to the broadcasted request; and
11   if the connection priority of the respective computing device is
12 higher than the connection priority included in the broadcasted
13 request, performing the steps of:
14   broadcasting to the network a request to become the

15   gateway from the respective computing device within the

16   predetermined time period, wherein the request to become the

17   gateway includes the connection priority of the respective

18   computing device; and

19   assigning the respective computing device as the gateway

20   for the network if the respective computing device receives no

21   response from the other computing devices within the

22   predetermined time period.

1   16. (Original) In a network comprising a plurality of computing

2 devices, each computing device having a memory and being capable of

3 accessing the Internet, and at least one of the computing devices being

4 capable of connecting to the Internet, each computing device capable

5 of connecting to the Internet having a connection priority, a method

6 for assigning an Internet gateway for the network, comprising the

7 steps of:

8   broadcasting to the network a request for a new gateway from

9 one of the computing devices;

10   in response to the request for new gateway, broadcasting to the

11 network a request to become the gateway from each computing device

12 capable of connecting to the Internet, wherein each request to become

13 the gateway includes the connection priority of the respective

14 computing device broadcasting the request to become the gateway; and

15   in response to the request to become the gateway, performing by

16 each computing device capable of connecting to the Internet steps of:

17   determining whether the connection priority of the

18   respective computing device is higher than the connection

19   priority included in the broadcasted request to become the

20   gateway; if the connection priority of the respective computing

21   device is not higher than the connection priority included in the

22   broadcasted request to become the gateway, sending no response

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23   to the broadcasted request to become the gateway; and if the
24   connection priority of the respective computing device is higher
25   than the connection priority included in the broadcasted request
26   to become the gateway, performing the steps of:
27   broadcasting to the network a request to become the
28   gateway from the respective computing device within the
29   predetermined time period, wherein the request to become
30   the gateway includes the connection priority of the
31   respective computing device; and
32   assigning the respective computing device as the
33   new gateway for the network if the respective computing
34   device receives no response from the other computing
35   devices within the predetermined time period.

1   17. (Original) The method of claim 16, wherein the
2   predetermined time period is approximately 1 to 5 seconds.

1   18. (Original) The method of claim 16, wherein each computing
2   device is assigned a unique Internet protocol (IP) address, further
3   comprising the steps of:
4   broadcasting to the network the IP address of the computing
5   device assigned as the new gateway for the network; and
6   storing in the memory of each computing device the IP address
7   broadcasted to the network as the IP address of the gateway for the
8   network.

1   19. (Original) The method of claim 16, wherein the computing
2   device assigned as the gateway for the network is assigned a unique
3   client IP address and assumes a predetermined gateway IP address.

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1   20. (Original) The method of claim 16, wherein one of the

2   computing devices is capable of operating as a proxy for the Internet

3   gateway and is capable of being assigned a unique client IP address

4   and a proxy IP address, and further wherein at least one of the other

5   computing devices is capable of accessing the Internet by performing

6   the steps of:

7   transmitting from the respective computing device to the proxy

8   IP address of the proxy a message to be sent to the Internet; and

9   transmitting from the proxy IP address of the proxy to the

10 computing device assigned as the gateway for the network the message

11 to be sent to the Internet.

1   21. (Original) A storage medium readable by a computing

2   device and having instructions encoded thereon for causing the

3   computing device to perform, in a network comprising a plurality of

4   computing devices, each computing device having a memory and being

5   capable of accessing the Internet, and at least one of the computing

6   devices being capable of connecting to the Internet, each computing

7   device capable of connecting to the Internet having a connection

8   priority, a method for assigning an Internet gateway for the network,

9   the method comprising the steps of:

10   broadcasting to the network a request for a new gateway from

11 one of the computing devices;

12   in response to the request for the new gateway, broadcasting to

13 the network a request to become the gateway from each computing

14 device capable of connecting to the Internet, wherein each request to

15 become the gateway includes the connection priority of the respective

16 computing device broadcasting the request to become the gateway; and

17   in response to the request to become the gateway, performing by

18 each computing device capable of connecting to the Internet the steps

19 of:

20   determining whether the connection priority of the

21   respective computing device is higher than the connection

22   priority included in the broadcasted request to become the

23   gateway;

24   if the connection priority of the respective computing

25   device is not higher than the connection priority included in the

26   broadcasted request to become the gateway, sending no response

27   to the broadcasted request to become the gateway; and

28   if the connection priority of the respective computing

29   device is higher than the connection priority included in the

30   broadcasted request to become the gateway, performing the steps

31   of:

32   broadcasting to the network a request to become the

33   gateway from the respective computing device within the

34   predetermined time period, wherein the request to become

35   the gateway includes the connection priority of the

36   respective computing device; and

37   assigning the respective computing device as the

38   gateway for the network if the respective computing

39   device receives no response from the other computing

40   devices within the predetermined time period.

1   22. (Original) The storage medium of claim 21, wherein each

2   computing device is assigned a unique Internet protocol (IP) address,

3   and further wherein he method further comprises the steps of:

4   broadcasting to the network the IP address of the computing

5   device assigned as the new gateway for the network; and

6   storing in the memory of each computing device the IP address

7   broadcasted to the network as the IP address of the gateway for the

8   network.

1   23. (Original) The storage medium of claim 21, wherein the
2 computing device assigned as the gateway for the network is assigned
3 a unique client IP adlress and assumes a predetermined gateway IP
4 address.

1   24. (Original) The storage medium of claim 21, wherein one to
2 the computing devices is capable of operating as a proxy for the
3 Internet gateway and is capable of being assigned a unique client IP
4 address and a proxy P address, and further wherein at least one of the
5 other computing devces is capable of accessing the Internet by
6 performing the steps of:
7   transmitting fr m the respective computing device to the proxy
8 IP address of the prcxy a message to be sent to the Internet; and
9   transmitting fr m the proxy IP address of the proxy to the
10 computing device as igned as the gateway for the network the message
11 to be sent to the Inte rnet.

1   25. (Withdrawn) In a network comprising a plurality of
2 computing devices, each computing device having a memory and being
3 capable of accessing the Internet, and one or more of the computing
4 devices being capable of connecting to the Internet, and one of the
5 computing devices being assigned as a current Internet gateway for
6 the network, a method for assigning an Internet gateway for the
7 network, comprising the steps of:
8   detecting a failure to access the Internet through the current
9 Internet gateway by one of the computing devices;
10   in response to the detected failure, dynamically assigning one of
11 the computing devices capable of connecting to the Internet as a new
12 Internet gateway for the network; and
13   automatically reconfiguring each computing device to access the
14 Internet through the new Internet gateway.

1   26. (Withdrawn) The method of claim 25, wherein each
2   computing device is assigned a unique Internet protocol (IP) address,
3   and further wherein the step of automatically reconfiguring each
4   computing device to access the Internet through the new Internet
5   gateway further comprises the steps of:
6   broadcasting to the network the IP address of the computing
7   device assigned as the new Internet gateway for the network; and
8   storing in the memory of each computing device the IP address
9   broadcasted to the network as the IP address of the Internet gateway
10   for the network.

1   27. (Withdrawn) The method of claim 25, wherein the
2   computing device assigned as the gateway for the network is assigned
3   a unique client IP address and assumes a predetermined gateway IP
4   address.

1   28. (Withdrawn) The method of claim 25, wherein one of the
2   computing devices is capable of operating as a proxy for the Internet
3   gateway and is capable of being assigned a unique client IP address
4   and a proxy IP address, and further wherein at least one of the other
5   computing devices is capable of accessing the Internet by performing
6   the steps of:
7   transmitting from the respective computing device to the proxy
8   IP address of the proxy a message to be sent to the Internet; and
9   transmitting from the proxy IP address of the proxy to the
10   computing device assigned as the gateway for the network the message
11   to be sent to the Internet.

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1   29. (Withdrawn) The method of claim 25, wherein the step of
2   dynamically assigning one of the computing devices capable of
3   connecting to the Internet as the new Internet gateway for the network
4   further comprises the steps of:
5   in response to the detected failure, broadcasting to the network a
6   request to become the gateway from one of the computing device
7   capable of connecting to the Internet, wherein the request to become
8   the gateway includes the connection priority of the computing device
9   broadcasting the request; and
10   assigning the computing device broadcasting the request as the
11   new Internet gateway for the network if the computing device
12   broadcasting the request does not receive a response from the other
13   computing devices within a predetermined time period.

1   30. (Withdrawn) The method of claim 29, wherein the
2   predetermined time period is approximately 1 to 5 seconds.

1   31. (Withdrawn) The method of claim 29, wherein at least one
2   of the other computing devices capable of connection to the Internet
3   responds to the broadcasted request to become the gateway by
4   performing the steps of:
5   determining whether the connection priority of the respective
6   computing device is higher than the connection priority included in
7   the broadcasted request to become the gateway;
8   if the connection priority of the respective computing device is
9   not higher than the connection priority included in the broadcasted
10   request to become the gateway, sending no response to the
11   broadcasted request; and
12   if the connection priority of the respective computing device is
13   higher than the connection priority included in the broadcasted
14   request to become the gateway, performing the step of:

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15   broadcasting to the network a request to become the

16   gateway from the respective computing device within the

17   predetermined time period, wherein the request to become the

18   gateway includes the connection priority of the respective

19   computing device; and

20   assigning the respective computing device as the new

21   Internet gateway for the network if the respective computing

22   device receives no response from the other computing devices

23   within the predetermined time period.

1   32. (Withdrawn) The method of claim 31, wherein each

2   computing device is assigned a unique Internet protocol (IP) address,

3   and further wherein the step of automatically reconfiguring each

4   computing device to access the Internet through the new Internet

5   gateway further comprises the steps of:

6   broadcasting to the network IP address of the computing device

7   assigned as the new Internet gateway for the network; and

8   storing in the memory of each computing device the IP address

9   broadcasted to the network as the IP address of the Internet gateway

10 for the network.

1   33. (Withdrawn) The method of claim 31, wherein the

2   computing device assigned as the gateway for the network is assigned

3   a unique client IP address and assumes a predetermined gateway IP

4   address.

1   34. (Withdrawn) The method of claim 31, wherein one of the

2   computing devices is capable of operating as a proxy for the Internet

3   gateway and is capable of being assigned a unique client IP address

4   and a proxy IP address, and further wherein at least one of the other

5   computing devices is capable of accessing the Internet by performing

6   the steps of:

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7   transmitting from the respective computing device proxy IP
8   address of the proxy a message to be sent to the Internet; and
9   transmitting from the proxy IP address of the proxy to the
10   computing device assigned as the gateway for the network the message
11   to be sent to the Internet.

1   35.   (Withdrawn) A storage medium readable by a computing
2   device and having instructions encoded thereon for causing the
3   computing device to perform, in a network comprising a plurality of
4   computing devices, each computing device having a memory and being
5   capable of accessing the Internet, and one or more of the computing
6   devices being capable of connecting to the Internet, and one of the
7   computing devices being assigned as a current Internet gateway for
8   the network, a method for assigning an Internet gateway for the
9   network, the method comprising the steps of:
10   detecting a failure to access the Internet through the current
11   Internet gateway by one of the computing devices;
12   dynamically assigning one of the computing devices capable of
13   connecting to the Internet as a new Internet gateway for the network;
14   and
15   automatically reconfiguring each computing device to access the
16   Internet through the new Internet gateway.

1   36.   (Withdrawn) The storage medium of claim 35, wherein each
2   computing device is assigned a unique Internet protocol (IP) address,
3   and further wherein the step of automatically reconfiguring each
4   computing device to access the Internet through the new Internet
5   gateway further comprises the steps of:
6   broadcasting the IP address of the computing device assigned
7   as the new Internet gateway for the network; and
8   storing in the memory of each computing device the IP address
9   broadcasted to the network as the IP address of the Internet gateway

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10   for the network.

1   37. (Withdrawn) The storage medium of claim 35, wherein the
2   computing device assigned as the gateway for the network is assigned
3   a unique client IP address and assumes a predetermined gateway IP
4   address.

1   38. (Withdrawn) The storage medium of claim 35, wherein one
2   of the computing devices is capable of operating as a proxy having a
3   unique sending IP address and a unique receiving IP address, and
4   further wherein at least one of the other computing devices is capable
5   of accessing the Internet by performing the steps of:
6   transmitting from the respective computing device to the
7   receiving IP address of the proxy a message to be sent to the Internet;
8   and
9   routing from the sending IP address of the proxy to the
10   computing device assigned as the gateway for the network the message
11   to be sent to the Internet.

1   39. (Withdrawn) The storage medium of claim 35, wherein the
2   step of dynamically assigning one of the computing devices capable of
3   connecting to the Internet as the new Internet gateway for the network
4   further comprises the steps of:
5   broadcasting to the network a request to become the gateway
6   from one of the computing devices capable of connecting to the
7   Internet, wherein the request to become the gateway includes the
8   connection priority of the computing device broadcasting the request;
9   and
10   assigning the computing device broadcasting the request as the
11   new Internet gateway for the network if the computing device
12   broadcasting the request does not receive a response from the other
13   computing devices within a predetermined time period.

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1   40. (Withdrawn) The storage medium of claim 39, wherein at
2 least one of the other computing devices capable of connecting to the
3 Internet responds to the broadcasted request to become the gateway by
4 performing the steps of:
5   determining whether the connection priority of the respective
6 computing device is higher than the connection priority included in
7 the broadcasted request to become the gateway;
8   if the connection priority of the respective computing device is
9 not higher than the connection priority included in the broadcasted
10 request to become the gateway, sending no response to the
11 broadcasted request; and
12   if the connection priority of the respective computing device is
13 higher than the connection priority included in the broadcasted
14 request to become the gateway, performing the steps of:
15   broadcasting to network a request to become the gateway
16   from the respective computing device within the predetermined
17   time period, wherein the request to become the gateway includes
18   the connection priority of the respective computing device; and
19   assigning the respective computing device as the new
20   Internet gateway for the network if the respective computing
21   device receives no response from the other computing devices
22   within the predetermined time period.

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1   41. (Currently Amended) The method of claim 1, wherein
2 broadcasting to the network the request to become the gateway
3 comprising comprises sending the request to more than one computing
4 device.

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1   42. (New) The method of claim 1, wherein broadcasting to the
2   network the request to become the gateway comprises sending the
3   request to more than one computing device without restriction on a
4   number of recipients .
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1   43. (New) The method of claim 1, wherein broadcasting to the
2   network the request to become the gateway comprises sending the
3   request to each computing device of the plurality of computing
4   devices.
1

1   44. (New) The method of claim 1, wherein broadcasting to the
2   network the request o become the gateway comprises sending the
3   request to all compu ing devices of the plurality of computing
4   devices.
1